

CLAIMS

What is claimed is:

1. A washing machine comprising:
a cabinet having a base;
a tub;
a support frame connected to said tub; and
an isolation damper assembly for resiliently coupling said support frame to said base of said cabinet, said isolation damper assembly having a first member adapted for connection to said cabinet base, a second member adapted for connection to said support frame, and an isolator disposed between said first and second members.
2. The washing machine of Claim 1 wherein said isolator of said isolation damper assembly is made of an elastomeric material.
3. The washing machine of Claim 1 wherein said isolator of said isolation damper assembly is made from microcellular polyurethane.
4. The washing machine of Claim 1 wherein said first member has a first segment adapted for connection to said cabinet base and a second segment extending transversely to said first segment, and wherein said isolator has an aperture within which said second segment of said first member extends.

5. The washing machine of Claim 4 wherein said aperture in said isolator includes a plurality of projections which engage said second segment of said first member.

6. The washing machine of Claim 5 wherein said second segment of said first member is a cylindrical hub segment, wherein said aperture in said isolator includes a plurality of inwardly extending lobes which engage said hub segment, and wherein said isolator is made of a resilient material such that said hub segment exerts a compressive load on said lobes of said isolator.

7. The washing machine of Claim 6 wherein said hub segment of said first member includes an outwardly extending lug which is disposed in a channel defined between an adjacent pair of said lobes so as to inhibit rotation of said tub relative to said base.

8. The washing machine of Claim 4 wherein said second segment of said first member is a hub segment defining a plurality of outwardly extending lobe projections adapted to engage said aperture in said isolator, and wherein said isolator is made of a resilient material such that said lobe projections exert a compressive load on said isolator.

9. The washing machine of Claim 8 wherein said aperture includes an inwardly extending tang which is disposed in a channel defined between an adjacent pair of said lobe projections so as to inhibit rotation of said tub relative to said base.

10. The washing machine of Claim 1 wherein said isolation damper assembly further includes a third member coupled to said first member so as to exert a compressive load on said isolator.

11. The washing machine of Claim 10 wherein said isolator has a groove receiving a rim portion of said second member therein.

12. A washing machine comprising:
a cabinet;
a tub assembly located within said cabinet and including an outer tub and a spin basket supported for rotation within said outer tub;
a support frame mounted to said outer tub;
a drive assembly operable for driving said spin basket; and
a resilient isolator coupling said support frame to said cabinet, said resilient isolator operable to inhibit rotation of said outer tub relative to said cabinet and bias said outer tub to a centered position within said cabinet.

13. The washing machine of Claim 12 further comprising:
a lower case member mounted to a base segment of said cabinet;
an upper case member spaced from and connected to said lower case member; and
a mounting ring secured to said support frame and engaging said isolator, and wherein said isolator is disposed between said lower and upper case members.

14. The washing machine of Claim 13 wherein said isolator is ring-shaped and has a central aperture, and wherein at least one of said upper and lower case members has a tubular segment extending into and engaging said central aperture of said isolator.

15. The washing machine of Claim 14 wherein said central aperture in said isolator has projections which engage said tubular segment.

16. The washing machine of Claim 15 wherein said tubular segment includes a lug which is disposed in a space defined between an adjacent pair of said projections in said central aperture of said isolator.

17. The washing machine of Claim 14 wherein said tubular segment defines a plurality of outwardly extending projections engaging said central aperture of said isolator, and wherein said central aperture in said isolator includes an inwardly extending tang which is disposed in a space defined to be an adjacent pair of said projections on said tubular segment.

18. The washing machine of Claim 14 wherein said isolator includes a groove formed in its edge surface, and wherein said mounting ring includes a rim segment disposed in said groove.

19. The washing machine of Claim 12 wherein said isolator is fabricated from an elastomeric material.

20. The washing machine of Claim 19 wherein said isolator is fabricated from a microcellular polyurethane material.

21. A method of suspending a tub from a cabinet in a laundry washing machine comprising the steps of:

mounting a support structure to said tub; and

installing an isolation damper assembly between the support structure and a base portion of the cabinet, said isolation damper assembly including a resilient isolator disposed between a first member secured to the base and a second member secured to the support structure and which functions to inhibit rotation of the tub relative to the base and bias the tub to a centered position relative to the base.